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Structuring the Concepts of the Image of the City in the Space-Time Continuum

1. The concept of the image of the city is a representation of the cultural paradigms of the epoch

Cities are spaces. Spaces exist in time, so from the very beginning they are chronotopes and this indicates the interdependence of spatial and temporal orders². Space as a category itself presupposes a connection with the category of “time”³. Space is not only a natural, geographically defined quantity, it is empty from the very beginning and needs to be filled, but it is a cultural, media and social product that changes in the historical context¹. The city is interdisciplinary due to its heterogeneity and its complex system of interconnected elements. Cities, as a concept in general, have a history of six thousand years⁴. And only a small part of this period, researchers are trying to either differentiate or combine all its elements and define them depending on the point of view of which science the researcher considers the city. “Attempts to describe, explain, create and manage the city have given rise to different ways of imagining

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² Shtretling, S. , Mishchenko, K. (Eds.) (2018) *Ruhlyvyj prostir* [Agile space]. P. 8.

³ Herchanivska, P. (2015) *Kul'turologija. Terminologichnyj slovnyk* [Culturology. Terminological dictionary]. P. 149.

⁴ Smith, M. (2020) *Mista. Pershi 6000 rokiv* [Cities. The first 6000 years]. P. 23.

the city, various paradigms, models and theories of the city”⁵. However, all these elements are united by a single common shell called the “image of the city”. The image of the city is largely an artistic property of its structure, which allows to emotionally research its essence – the conditions, organization and ideals of its life through their representation in the material-spatial form⁶. Internal and external factors of human socio-cultural life are the most important factors influencing the development of the city, and hence its image.

Historian and theorist of architecture A. Ikonnikov believed that: “For us, material traces of historical destiny in many ways – if not in the main – determine the special image of the city, give its “face a non-common expression”⁷. Concepts of the image of the city should be explored as a whole wide layer that fills space and time. “And the history of architecture do not differ from the general history – it has the same processes. To my mind, interdisciplinary optics can save this situation. We need to mix everything – gender studies, sociology, history, literature, etc. And then we can get something out of it”, says Ie. Gubkina⁸.

Never before have cities known such a rapid process of growth and change that is considered “normal” today. Every cycle in the history of the city, in which there is a break of cultural paradigms is characterized by a revolution in the perception of the level of relevance of the environment of society. Such changes are always guarded by scientists and artists who generate new concepts of understanding urban space. Theoretical treatises are appearing describing the new idea and their illustrative plans or sketches, demonstrating the concept of the newly created image of the city. The image of the city is the result of responding to changes in the development of cultural paradigms, current challenges

⁵ Petryshyn, H., Posatskyi, B., Kryvoruchko, Yu, et al. (2016). *Mistobudivne proektuvannja. Chastyna I: Misto jak objekt proektuvannja* [Urban planning. Part 1: The city as an object of design]. P. 9.

⁶ Holdzamt, E., Shvydkovskyi, O. (1985). *Gradostroytel'naja kul'tura evropejskyh sotsyalystycheskyh stran* [Urban culture of European socialist countries]. P. 341.

⁷ Ikonnikov, A. (1985). *Yskusstvo, sreda, vremja. Jestetycheskaja organizacyja gorodskoj sredy* [Art, environ, time. Aesthetic organization of the urban environment]. P. 114.

⁸ Artslooker (2020). *Arhitektorka ta doslidnycja Jevgenija Gubkina pro radjans'ku spadshhynu ta osoblyvosti ukrai'ns'kogo modernizmu* [Architect and researcher Yevhenia Gubkina on the Soviet heritage and personalities of Ukrainian modernism].

of a particular era, indicates a reassessment of values. Images of cities as a result of socio-cultural design: “<...> become certain ideal images, a virtual reality to which we want to adapt our reality”⁹.

The world knows dozens of concepts of the image of the city. They are all divided between epochs. Usually each epoch is marked by one main concept, the others either did not gain popularity or relevance, or were in some way derived from the main image. That is, they kept a single basic, but the main idea and in addition varied their secondary components. Researchers prefer to study a specific period in the history of the city's culture, to adhere to the theme of one theory or principle, model or concept of the image, and so on. However, there is currently no complete general or detailed picture that would represent an idea of the all-encompassing way of life of such a phenomenon as the image of the city. Unfortunately, there is no such scheme that would allow to see the relationship of cultural patterns of the era and their embodiment in the concept of the image of the city, the interaction between such concepts, finally the way of life from their inception to today in general, and in particular – the way of life from the emergence of a certain concept, its transformation, evolution to regression and disappearance.

2. Methods of working with the concepts of the image of the city

Therefore, in order to create a general (and later detailed) picture of spatio-temporal changes that occurred within the concepts of urban images and to respond to the above aspects, to my mind, it would be appropriate to form a model of structuring all known concepts of urban images. In this study, as such a topic is raised for the first time, I believe that to form a model will be sufficient to use the basic known/popular concepts of each era, which in a key context reflected the mood in European culture – basic structuring. Thus, I propose to apply to the structuring of the most famous concepts of cities images the model of complex developing systems, with the main focus on the life cycle of the system and its adaptive capabilities.

⁹ Petryshyn, H., Posatskyi, B., Kryvoruchko, Yu, et al. (2016). *Mistobudivne proektuvannja. Chastyna I: Misto jak objekt proektuvannja* [Urban planning. Part 1: The city as an object of design]. P. 30.

This model is formed within the basic tenets of cybernetics, this fact at first glance may cause a misunderstanding about the relationship between the city and science “<...> about the general laws of process management and information transfer in machines, living organisms and society”¹⁰. However, cities: “... are complex, self-organizing human-machine systems”¹¹. This definition belongs to cybernetic M. Ignatev, who for many years has been using the city as an object of modeling. “<...> the city is easily accessible for observation and study, the city is a complex self-organizing system, its study can illustrate many principles of managing complex systems”¹². M. Ignatev, publishing one of his works, emphasizes that the work reflects unresolved issues in order to inspire readers to develop and study the new things using the principles of complex systems¹³. To a large extent, the author dwells upon the organization of the city as a complex system. This factor has become the key in my decision to apply the similar model of complex systems to understand the life cycle of the concept of the city image.

To form a model of concepts of the image of the city as a developing system, a certain methodological order selected by the author of this article for the correct and meaningful reflection of the model should be applied. Initially, a historical approach must be used to find out the origin and development of concepts. A systematic approach will allow us to explore each of the concepts as a separate complex object and its internal interrelations before combining all the concepts of the image of the city into a single large-scale model of the developing system. And the structural-functional one will help explain the processes of influence and relationship between the elements of the system separately and between a set of such elements as a result of the formation of a single concept of the image. And the final stage is the synergetic approach, which is equal to the definition in the behavior of a complex system of crisis points and the emergence of adaptive capabilities and the impact of maintaining their maximum. This methodological sample is of basic

¹⁰ Tolkovjy slovar' Ozhegova (2008). Kibernetika [Cybernetics].

¹¹ Ignatev, M. (2016). Prosto kibernetika [Just cybernetics]. P. 172.

¹² Ignatev, M. (2016). Prosto kibernetika [Just cybernetics]. P. 187.

¹³ Ignatev, M. (2016). Prosto kibernetika [Just cybernetics]. P. 11.

importance and can be varied depending on the specifics of individual areas of research on this issue in the field of image of the city.

A complex system is a system formed from a set of interdependent elements. The presence of adaptation processes is the basis of self-organization of complex systems in nature and society. The image of the city is a complex system, with the presence of adaptive capabilities, formed from such interacting elements as culture and art, economics and politics, production, relief and climate, and so on. In this paper, it is adaptation that becomes the focus of the study of the peculiarities of the life cycle of the concept of the image of the city in space and time.

The model of the developing system will allow to demonstrate the presence of adaptive capabilities, to explain the existence of a crisis situation in the development cycle of the system¹⁴. This feature of the model, if applied to the systematization of concepts of the city image will help describe the life cycle of the concept, to record the points of its “formation”, functioning peak and decline of its relevance, while recording the presence of all adaptive processes of its life cycle. Ukrainian architect Yu. Repin, analyzing modern ideas about the city drew attention to the fact that in the process of city development there arise “critical” situations with new problems, which in turn can lead to new concepts based on the formulation of new theoretical ideas of further city development¹⁵.

For now, let's move on to the formation of a model for structuring concepts, explication the content of the system and an illustrative description of the basic example of its operation. I note that the structure and essence of the original model remain unchanged, but certain definitions may be variable to the peculiarities of urban culturology. Therefore, the life cycle of the system consists of the following elements:

- the origination point of the system. This is the stage when a certain concept emerges in accordance with the current challenges of the time, which characterizes the cultural, social, political, economic, etc. aspects of the era;
- the main period of its functioning, which runs between the point of its occurrence and the point of completion of functioning. The

¹⁴ Ignatev, M. (2016). Prosto kibernetika [Just cybernetics]. P. 25.

¹⁵ Repin, Yu (2009). Prostranstvennyj gorod. Teorija i praktika [Spatial city. Theory and practice]. P. 37.

- period during which the concept “stays afloat” and is relevant until the stage of change of cultural paradigms in society. This period consists of the maximum of adaptive possibilities;
- the end point of the concept (or crisis point). The decline of the relevance of the idea due to the beginning of changes in cultural paradigms in society. That is, the concept becomes outdated, irrelevant. The adaptations that made up the period of its active operation are canceled. At this point, the transformation process must begin. According to the rules of the basic model of complex systems at this stage there may be several scenarios of transformation: 1) the system continues to evolve; 2) the system through the creative process will move to a new state; 3) the system will be destroyed. In accordance of the model with the specifics of the research topic, the transformation scenarios, to my mind, the first two options are combined. That is, the concept of the image of the city at the point of completion its functioning either continues its evolution, while it undergoes a creative process of rethinking and with new “changes and additions” enters a new marathon of adaptation (for example, the transformation of “perfect city” into “palazzo in fortezza”). Or it is radically eliminated and the concept built from scratch (for example, “cybernetic city”, “marine city”) comes to the fore. “The presence of crisis points is the immanence of complex systems and we can only influence their depth, including as many creative processes as possible,” – explains M. Ignatev¹⁶. The formed model, with the help of which the concepts will be structured and its explication now makes it possible to illustrate it with a specific example. Since the format of a scientific article has limitations on its content, and this development is introduced for the first time and in the first place requires the formation of its base for further more detailed development, I apply only the most well-known concepts of the image of the city. Namely: the “perfect city” of the Renaissance, the “palazzo in fortezza” of the Enlightenment, the “garden city” and the “linear city” of the industrialization period, the concept of “cybernetic city” (as one example of urban

¹⁶ Ignatev, M. (2016). Prosto kibernetika [Just cybernetics]. P. 25.

development ideas of socialist countries) of the modern history, “city as an organism” and “smart city” of the present.

3. An illustrative example of the operation of the model

In the Renaissance, the concept of “perfect cities” actively arose, the first theoretical projects belonging to the Greek ancient school: Plato, Hippocrates and Aristotle (IV century BC). The image of the perfect city is created by Vincenzo Scamozzi, A. Filarete, F. Martini, J. Perre, Dürer. The concept of “perfect city” is the first point of the cycle in the development of concepts of the image of the city at the level we now imagine – with form and content, features and uniqueness, cultural paradigm and answers to current issues and authorship of each project. Its form and content correspond to the anthropocentrism, humanistic ideas, including the emergence of authorship and individuality in self-expression that are inherent for the epoch of the Renaissance. These views of human in the system of the universe are reflected on the paper plan of the perfect city – the center with the main point (religious building, sculpture, main square, etc.) and radial streets that lead from any corner of the city to the central point. A human is the center of the universe, attention to their individuality. The need for protection from constant armed conflicts and the development of military equipment determine the framing of urban space with fortifications in the form of five-, six-sided stars. This form, in addition to geometric aesthetics in accordance with the concept of a perfect city, is due to two factors. In the first case, this is the specifics of fighting – multifaceted fortification allows to avoid blind spots when defending outside the urban space. The second aspect concerns the mystical principle. K. Lypa in their study reveals the probable versions of the correspondence of geometric shapes of perfect cities of the Renaissance to mystical practices from the pentagram to the World Tree¹⁷.

In contrast to the period of industrialization, the development of the urban environment between the Renaissance and the Enlightenment is much smoother and has no pronounced changes. The point of crisis in

¹⁷ Lypa, K. (2016). *Teorija arhitektury, mistyka i vijna* [Theory of architecture, mysticism and war]. P. 75–93.

this period is closer to creative processes, rethinking, additions and small changes than the total decline of the concept of a perfect city and the emergence of a new, completely different one. Yes, the square remains the main central element, but it: “<...> has moved to a higher hierarchical level than the Renaissance square with a predominant commercial function. <...> the square has a representative function, emphasizing the status of the city owner. During this period, the square became more lush, was actively complemented by greenery, it included water compositions with fountains, small architectural forms, such as columns, obelisks, which became points of meetings, entertainment <...>”¹⁸. This is due to the emergence of human happiness and the intensification of public life. This period has no clear boundaries of conceptual changes in the concepts of urban image because the anthropocentrism of the Renaissance is not replaced, but supplemented by the idea of improving human existence through the development of knowledge, education, culture, influencing the development of civilization as a whole. The compositional center of the city is made of different types of buildings: the usual square and the residence or palace. These changes are formed into a more “relevant” concept – “palazzo in fortezza”. Therefore, the period of XVII–XVIII centuries is characterized by ensemble formations with artistic expressiveness and new principles of space organization, aimed at creating unforgettable impressions and extraordinary impact on the human¹⁹. The dominance of the idea of development of knowledge and culture, a number of discoveries, rationalism lead to the flourishing of socio-economic relations, which begin an active phase of changes in the image of the urban environment.

The era of industrialization is developing transport infrastructure, attracting more and more people to cities. The continuous increase in the share of urban population contributes to increasing the level of civiliza-

¹⁸ Lukoms'ka, Z. (2018). *Mistobuduvannja Zahidnoi' Ukrai'ny epohy baroko* (ser. XVII ST. – kin. XVIII st.) [Urban planning of Western Ukraine in the Baroque era (middle XVII – end XVIII)]. P. 215.

¹⁹ Lukoms'ka, Z. (2018). *Mistobuduvannja Zahidnoi' Ukrai'ny epohy baroko* (ser. XVII ST. – kin. XVIII st.) [Urban planning of Western Ukraine in the Baroque era (middle XVII – end XVIII)]. P. 213.

tion of the population²⁰. Cities are beginning to develop massively, and most importantly – rapidly. Such ways of development have shown all the shortcomings of existing cities. Here, the concepts that tried to absorb all the beautiful, faced with a lack of practicality and were not ready for the inflow of population or industrial development, which led to the expansion of both borders and urban populations. When organizing the fortification framing of the city, it was not envisaged that sooner or later the urban environment would fill the entire interior space and its spatial development would not be possible. Theorists and practitioners of urban planning started creating appropriate concepts. Creative processes in the formation of the image of the city focus on the principles of compact concentration of people and buildings, increasing the number of storeys of residential and non-residential buildings. The key ideas of the XIX century became “Garden City” of G. Ebenezer²¹ and “Linear City” by A. Soria y Mata²².

Declining rural populations and urban overpopulation have been the main factors influencing the emergence of the “garden city” concept. Crowding, problems with lighting and air should not be an obstacle for people to live in cities, while villages do not have such problematic aspects. Especially since cities, even with these shortcomings, attract residents, as evidenced by the desolation of rural areas. Ebenezer Howard proceeds from this question with an answer in the form of the “garden city” concept, which should combine the virtues of city and village. The city itself, in its classical sense, is located in the center and occupies only 1/6 of the total area and has a radius of just over one kilometer, and the other 5/6 – is agricultural land. Land in such cities is transferred only for hereditary lease. The city center is a garden surrounded by public buildings: a museum, a theater, a library, etc. The buildings in turn are surrounded in a circle by a park hidden under a glass dome and have the most important shops, which will serve as a place for strolls even in bad weather. The other area of the city is divided by “boulevards-rays” and

²⁰ Repin, Yu (2009). *Prostranstvennyj gorod. Teorija i praktika* [Spatial city. Theory and practice]. P. 37.

²¹ Ebenezer, H. (1911). *Goroda budushhego* [Cities of the future].

²² Filippov, V. (2019). “Linejnyj gorod”: gradostroitel'nye i social'nye aspekty proekta Arturo Soria [“Linear City”: Urban development and social aspects of the Arturo Soria project].

radial streets and is divided into quarters. Each family has its own plot with a garden and a house. All buildings are low-rise. One of the radial streets is the widest, almost 150 meters, and is also a garden where educational institutions are located. Agricultural land around the city should have its production sold in the city, at the same time, agricultural workers can meet their needs in the city with its cultural institutions. Hospitals, sanatoriums, factories, industrial schools, etc. are located on the territory of the area offered for the land.

The concept of the garden city had been popular for 50 years before the Second World War. Contrary to the concept author's desire to reduce the cost of plots, which would make them affordable, they had a high price due to low-rise buildings, given the fact that the plots are far from the center. In real cities, only enthusiasts with financial prosperity could afford such plots. Later, the city became bedroom suburbs. In 1943–1946, the crisis of the garden-city concept experienced a creative process by Englishman Patrick Leslie Abercrombie²³. Architect Abercrombie almost doubled the size of the city, which made it possible to accommodate more people and halved the distance of the garden city from the metropolis. These were to be seven satellite cities, as they are now called, around London (and later other cities). Housing was compacted, and low-rise buildings were able to be medium – and even, in some cases, multi-storey, which reduced the cost of land²⁴. For two decades, both Howard's first idea and creative transformations of errors by Abercrombie demonstrated the inefficiency of the concept of the garden city due to the uncompetitive environment and its provincial nature compared to the metropolis, difficulties in organizing new jobs, problems with relocation²⁵.

Similarly, the problem of resettlement was not solved by the concept of a linear city, which gained great popularity in the USSR during the period of industrialization. If in the garden cities for educational institu-

²³ Gutnov, A., Glazychev, V. (1990). *Mir arhitektury (Lico goroda)* [World of architecture (Face of the city)]. P. 89.

²⁴ Gutnov, A., Glazychev, V. (1990). *Mir arhitektury (Lico goroda)* [World of architecture (Face of the city)]. P. 90.

²⁵ Gutnov, A., Glazychev, V. (1990). *Mir arhitektury (Lico goroda)* [World of architecture (Face of the city)]. P. 91.

tions and health facilities a separate green strip was allocated, then in the linear city there was no place for such large institutions. Priority is given to the combination of industrial and residential areas along a single highway. However, stretched communications and infrastructure proved to be one big shortcoming. In addition, the author of the concept Arturo Soria suggested that linear cities solve crime and social problems, which proved to be absolutely impossible, and the lack of any urban development created a sense of incompleteness, and subsequently all these factors led to the degradation of the linear city concept²⁶.

The development of all aspects of social goods and infrastructure, which accelerates access to these same goods, the development of science and technology open up the possibility for people to create completely extravagant projects for the organization of their environment. From decade to decade, the flow from villages to cities is growing. The problem of overcrowding of urban space is not solved by projects of garden cities and linear cities, the issue remains relevant. There arose a whole bunch of architects who work with this problem and propose new projects aimed at the resettlement factor. To the “linear city” and “garden cities” in the twentieth century, the theory of “central places” by V. Crystaller is added. “Three forms of settlement” by Le Corbusier – is a triangle shape in which three radially concentric cities in which there is a material and spiritual exchange that are interconnected by highways, along which on both sides is a linear industrial city, and inside and outside this triangle are scattered villages or farms – units of agricultural production. There arise new forms of settlement, which in the scientific literature are called: “metropolises”, “agglomerations”, “conurbations”, “megalopolises”, “ecumenical cities”. In the USSR, a group of students from Moscow University of Architecture was formed to design of the cities of the future, which later became known as the “New Element of Settlement”²⁷.

If one part of the artists worked on the problem of resettlement, the other created projects of images of cities that corresponded to the ide-

²⁶ Filippov, V. (2019). “Linejnyj gorod”: gradostroitel'nye i social'nye aspekty proekta Arturo Soria [“Linear City”: Urban development and social aspects of the Arturo Soria project]. P. 65.

²⁷ Baburov, A., Gutnov, A., Djumenton G. et al. (1967). Novyj jelement rasselenija [A new element of settlement].

ology and socio-cultural processes of the twentieth century. The coming fourth wave of the information revolution, the actualization of the introduction of rapid contacts between citizens and spheres of human activity in general, and, again, like any new concept – the reappraisal of values, gives rise to the concept of “cybernetic city”. Author Nicola Schaeffer – inventor of cyber art, artist, sculptor, architect came up with the idea of creating an interactive cybernetic spectacle city. He proposed to divide it along the coordinate axis: residential areas should be arranged linearly horizontally, and all business, commercial and production facilities should be placed in giant skyscrapers up to 1500 m high²⁸.

However, all previous concepts have one big thing in common. Many of these concepts are implemented, even more so – stored in archives on paper. Those implemented still found the end of the idea and returned to where we started: aesthetics and rationalism turned into chaos. This common pernicious feature is the desire to subdue a complex living system, to determine its conditions, to give static limits. Architect O. Lozhkin notes that among many architects a popular type of regulation of the city’s development is, as its author calls it, “utopian”. Its essence is that it is possible to develop a certain architectural project, which will be implemented exactly as intended, and this is a rule rather than an exception²⁹. If we pay more attention to the structure of such images of cities, it turns out that they all involve the presence of social infrastructure as a set of industries: “<...> the functional purpose of which in the system of social reproduction is the production and sale of services and spiritual goods for the population”³⁰.

In contrast, there arises another feature that concerns the authors of the concepts themselves, namely: what is the reason for the authors of

²⁸ Arhi.ru (2006). Utopija. Kibernetičeskij gorod, 1969 god Nikolja Schoffer [Utopia. Cyber city].

²⁹ Arhi.ru (2013). Očerok 10. Tri modeli gradoregulirovanija. Aleksandr Lozhkin ob utopičeskom, božhestvennom i pravovom v gradostroitel'stve [Essay 10. Three models of urban regulation. Alexander Lozhkin on the utopian, divine and legal in urban planning].

³⁰ Bizhanova M., Magomedova P. (2006). K voprosu o traktovke ponjatija social'noj infrastruktury [On the question of interpretation of the concept of social infrastructure]. P. 16.

the draft urban concepts to drop out places of imprisonment and does not prevent the occurrence of such phenomena as ghettos, gentrification, alienation, space degradation, etc.

The reassessment of modern values reveals the concept of the image of the city called “the city as an organism”. Researcher A. Safronova succinctly describes this approach: “Today, the comparison of the city with a living organism is no longer an allegory, but a reality. The city has a body: building tissues (different morphotypes: dense, dressed up, mixed), communication networks, like human blood vessels, places of physical labor (as muscle tissue of the body), intelligence (education and science production, services based on information processes) and most importantly, the soul is the inhabitants with their energy”³¹. Today, the city began to be perceived as a complex organism, all parts of which develop according to the laws of nature. There was a sharp critique of the desire for rigorous urban design, attempts to find and create a rational form of settlement type. There is an understanding that the city should develop on the basis of complex interaction of housing, work, trade, business, places for leisure, but not strict delimitation of all aspects of human life according to the sectors allocated to them on the architect’s paper project. In the rating studies on the quality of living in cities conducted by world-famous organizations³², architect O. Lozhkin points out that among the most favorable cities for living are old European or European-style cities. The author points out that of all the human-made models of the city, only the historical one, which was formed over the centuries of natural selection, is the most suitable for life³³.

This testifies to the identical principles of a living organism that adapts to the challenges of nature through transformation, the acquisition of new skills, appearance, and so on. The concept is designed to explain the

³¹ Safronova A. (2011). Gorod – zhivoj organizm [The city is a living organism]. P. 150.

³² Boholiubova I. (2018). Rerezentacija naslidkiv vzajemodii mis'koï i sil'skoï kul'tur v obrazi mista [Representation of the consequences of the interaction of urban and rural cultures in the image of the city]. P. 48–49.

³³ Archi.ru (2013). Ocherk 10. Tri modeli gradoregulirovanija. Aleksandr Lozhkin ob utopicheskom, bozhestvennom i pravovom v gradostroitel'stve [Essay 10. Three models of urban regulation. Alexander Lozhkin on the utopian, divine and legal in urban planning].

principles of urban functioning and planning of its individual elements harmoniously, correlating them with the city and citizens, respectively.

In the concepts of the image of the modern city, the concept of “smart city” goes hand in hand with the city-organism at this stage in Ukraine almost without affecting large-scale changes in architectural and planning processes. From afar, one can approach cautiously and see that it is similar to the previously mentioned “cybernetic city”, based on technical and informational aspects, but excluding radical architectural innovations in the form of the construction of the whole city.

The fundamental principle of the concept of “smart city” is the introduction of information technology and IoT (internet of things) in the urban environment. It is expected that such approach will improve the system of governance and interaction of the state with society, increase the quality and efficiency of city services, and all together will qualitatively change the lives of the population. The main assets of the city will be: people, processes and technologies³⁴. At this stage of the implementation of the “smart city” concept covers public administration, city infrastructure and the economy. Internet banking, ticket purchases (both for travel and cultural events), legal advice, paperwork, doctor’s appointments, sales, cyberpolice and many other services are now moving into the “smart city” sector. A certain part, very small, is reflected in architectural forms. However, it is more embodied in the concept of the city as an organism. Researchers are working on the psychology of the city – the impact on feelings, thinking and behavior, the impact of the environment on the psyche and lifestyle, the principles of interaction of natural and artificial – which together is a holistic organism.

4. Conclusions

Structuring the concepts of the image of the city according to the model of developing systems is aimed at: first, structuring allows to show a large-scale picture of the historical process of urban development from its constituent elements in the form of concepts of the image of the city. Second, to demonstrate the continuity of the urban canvas of its

³⁴ 1234G.ru (2021). Umnyj gorod. koncepcija, standartizacija i realizacija smart siti [Smart city. Concept, standardization and implementation of smart city].

existence in the space-time continuum. As a consequence, any transformation of urban space cannot take place without studying and understanding the historical context, which consists of a number of concepts of the image of the city, before all the previous manipulations. And also it cannot be fragmented and replaced by absolutely meaningless city canvas. Third, the model can be applied as a whole to the dominance of values reflected in urban planning and urban culture in the unions of states, commonwealths, in international cooperation on the organization of urban space, individual countries, individual cities and more.

And mainly, the model of structuring the concepts of the image of the city, by applying it to determine the causal links of all human activities on the one hand demonstrates the change of cultural values and chooses the path: either total destruction of previous concepts, or the application of loyal transformation to existing image. On the other hand, it allows us to identify processes that are adaptive, due to which the concept of the image of the city stays afloat and is one way or another for the comfortable life of citizens and the functioning of urban culture that does not reduce the welfare of the population. A city with a rather rich historical layering is a symbiosis of concepts of the image of the city, which has a great chance to be assessed in an urban sense as comfortable for life. But young cities, such as satellite cities of industrial production, or developed according to a new concept (possibly for the purpose of experiment), will face obstacles in the future, going all the way through the system of self-development and its adaptations. At the same time, this model represents the ability to work with calculations to predict the actual degradation of concepts and find as many adaptive maxima as possible.

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Summary

The global community has been overcoming the crisis of being in the city for almost a century. And we are trying to answer the problems of urban crises – how and why do they arise, which development path should the city take and is this step justified? The simplest way of overcoming the crisis by the city authorities is an irrational solution – to erase the past, and build a new one. In such cases, the historical layering of images of the city, which have a great cultural value, is not taken into account.

The city government alone and the bunch of institutions interested exclusively in their own financial issues do not have the right to carry out any transformations of the urban image without the participation of the city society and persons competent in this matter. It is culturology, on the one hand, that makes it possible to implement a comprehensive understanding of transformations in the urban space, excluding the one-sided development of transformations from a technical and aesthetic point of view of urban planning. On the other hand, it allows awareness-raising activities among urban residents, teaching them a kind of literacy and critical thinking about the center of their existence. However, for this purpose there must be a certain strategy of work and social cohesion.

So, having faced the problem of lack of convenient and at the same time comprehensive definition of the above-mentioned historical layering and the feasibility of transformations in the urban image, in this article I propose, in my opinion, mandatory and at the same time the main stage of work for institutions involved in urban planning.

I have developed a model of systematization of concepts of the image of the city, which at this time have already formed a historical multi-layer of the city. This development demonstrated the ability to predict the “behavior” of urban transformations in the future, especially young cities, whose historical layers of images are still ahead, based on the calculation of adaptation maxima in the life of the concept of the city image.

Keywords: image of the city, urban culturology, urban identity, history of the city, systematization, structuring.